

**Limited War in the Precision Engagement Era:
The Balance Between Dominant Maneuver and
Precision Engagement**

**A Monograph
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Abstract

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By MAJ Marvin A. Hedstrom Jr., USA, 51 pages.

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This study then recommends a proposed operational maneuver concept relevant to limited wars in the precision engagement era based on the theories of Hans Delbruck and Robert Leonhard. Finally, this study concludes that precision engagement has not advanced to the point where it will be the dominant concept at the operational level in America's future limited wars. It is the author's opinion that dominant maneuver remains the overarching concept at the operational level and that precision engagement remains an enabler.

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I. INTRODUCTION

“Many in the professional ranks of the American military see the reluctance to put soldiers on the ground in Kosovo as a disturbing precedent that calls for future wars to be fought and won by airpower alone.”¹ However, a close examination of American battlefield performance, from 1950-2000, suggests that the conduct of the campaign in Kosovo marks nothing more than another data point, albeit a dramatic one, along a continuum of firepower centric warfare by the United States military. Firepower has symbolized the American way of war since the American Civil War. Scales defines the American way of war as “the willingness of Americans to expend firepower freely to conserve human life.”² Americans have emphasized firepower in their method of warfare for three reasons: preserving the lives of its soldiers; historic lack of military preparedness; and their reliance on nonprofessional citizen soldiers. Artillery and aircraft have proven extremely effective means to overcome these limitations; “...bombing and shelling from great distance have proven to be the most efficient and cost effective means of delivering explosive power while avoiding direct, bloody contact with the enemy.”³

In the last 50 years, America’s military forces have adjusted their unique capabilities to produce a new style of warfare. High technology distant punishment promises to minimize the exposure of friendly forces and win America’s conflicts without the requirement to physically dominate the enemy on the ground with maneuver. Proponents of this idea believe that precision engagement has created a condition of interchangeability, in which firepower can substitute for maneuver on the modern battlefield. General (Retired) Glenn K. Otis states:

By the end of WWII, we realized the tank was the mobile firing platform of shock action and the hallmark of ground combat capabilities. So it became the

¹ Robert H. Scales Jr., “America’s Army in Transition: Preparing for War in the Precision Age,” *Army Issue Paper No. 3*, (Carlisle Barracks, PA: US Army War College, Strategic Studies Institute, 1999): p. 17.

² Robert H. Scales Jr., *Firepower in Limited War*, (Novato, CA: Presidio Press, 1997): p. 4.

³ Robert H. Scales Jr., *Firepower in Limited War*, (Novato, CA: Presidio Press, 1997): p. 5.

centerpiece of the combined arms team and our modern mechanized Army. Now, 50 years later, we're evolving into the next stage of combined arms wherein fires become the centerpiece. In this stage, ground movement (tanks and infantry) support fires instead of vice versa.⁴

This new style of warfare is the result of a fundamental shift in the relationship between two operational concepts defined in Joint Vision (JV) 2020: precision engagement and dominant maneuver. For two generations, the United States has derived its military superiority from a remarkable ability to translate technological innovation and industrial capacity into effective battlefield advantages. This superiority has become increasingly defined by the precise application of explosive killing power. "Precision engagement weapons can hit a target precisely, reducing collateral casualties, and like a gamma knife which can excise a tumor with hardly any bleeding, it has led to surgical strikes and other such new tactics, so that inconspicuous combat actions can achieve extremely notable strategic results."⁵

In light of these arguments, will precision engagement advance to the point where it will be the dominant operational concept in America's limited wars of the precision engagement era? The answer does not matter for our potential enemies because every successful technical and tactical innovation that provides a military advantage eventually yields to a countervailing response that shifts the advantage to the opposing force. Learning, adaptive enemies will develop a method of war that will attempt to defeat our preoccupation with precision engagement.⁶ The challenge for the United States military then, is to restore a range of balanced, offensive options on the battlefield of tomorrow. The military must orchestrate precision engagement and dominant maneuver in a more balanced approach to achieve decisive results in future conflicts.

⁴ Glenn K. Otis [GEN, US Army (Ret)], "The Ascendancy of Fires: The Evolution of the Combined Arms Team," Interview of General, *Field Artillery Journal*, (Ft. Sill, OK: US Army Field Artillery School, June 1995): p. 18.

⁵ Qiao Lang and Wang Xiangsui, *Unrestricted Warfare*, (Beijing, China: PLA Literature and Arts Publishing House, 1999): p. 24.

⁶ Robert H. Scales Jr., "Adaptive Enemies: Achieving Victory by Avoiding Defeat," *Joint Forces Quarterly*, (Washington, DC: National Defense University, March 2000): p. 7-14.

The US Army's draft Field Manual (FM) 3-0, Operations (Draft Review Advisory Group Edition), declares the necessity for maintaining a balance between firepower and maneuver by stating, "Commanders combine the elements of combat power to create overwhelming effects. By synchronizing effects at the decisive time and place, commanders convert the potential of forces, resources and opportunities into combat power."⁷ A military force optimized to fully exploit the benefits of precision engagement must be able to maneuver quickly against a dispersed static enemy. This can only be done if that force has adopted new methods of warfighting at the operational and tactical levels of war.

The emerging revolution in precision engagement and the requirement to win future wars quickly, decisively, and with minimal friendly casualties is challenging this balanced approach. Precision engagement (highly accurate firepower delivered by indirect means) brings only one of the five elements of combat power (maneuver, *firepower*, leadership, protection and information) to the battlefield. Although precision engagement can be paralytic in its effect, the effect is always fleeting. Precision engagement alone will not collapse an enemy's will to resist or insure a commander a decisive victory.

The lesson of the last 50 years for the United States is that air power and sea power are not strategically decisive by themselves. T.R. Fehrenbach clearly states this in his classic history of the Korean War, *This Kind of War*:

Americans in 1950 rediscovered something that since Hiroshima they had forgotten: you may fly over a land forever; you may bomb it, atomize it, pulverize it and wipe it clean of life – but if you desire to defend it, protect it, and keep it for civilization, you must do this on the ground, the way the Roman legions did, by putting your young men into the mud.⁸

Precision weapons are essential to achieve air and sea dominance, to protect ground forces, and to enable land power to defeat the enemy where he lives and thus occupy his territory. Decisive

⁷ US Department of the Army, *Operations (DRAG Edition)*, Field Manual 3-0, (Washington, DC: US Government Printing Office, 2000): p. 4-3.

⁸ T. R. Fehrenbach, *This Kind of War: The Classic Korean War History*, (Washington, DC: Brassey's, Inc., 1994): p. 290.

land operations set the strategic military conditions to enable the political settlement of a crisis that is acceptable to the United States and benefits the former adversary.⁹ The US Army is in a transition period during which critical decisions concerning operations and doctrine must be made.

This monograph focuses on the operational level of war and seeks to answer the question: Has the concept of precision engagement advanced to the point where it will be the dominant concept at the operational level in America's limited wars of the precision engagement era? To answer this question, the secondary questions that must be answered are: Is actual ground combat still a necessary feature of modern war? And if so, why can't it be conducted at arm's length? This monograph will explore these questions in four ways.

First, by examining the current world geostrategic situation, the monograph will explain the focus on limited war and place in context the future roles, missions and threats for the US Army. The operational concepts of precision engagement and dominant maneuver discussed within JV 2020 and FM 3-0 are compared to determine if the US Army is synchronized with the Chairman Joint Chiefs of Staff's vision of future warfighting.

Second, the US Army's use of dominant maneuver in the 21st century will be a function of the strategy for conducting warfare the military chooses to employ. Therefore, an understanding of the theories behind the strategies of warfare can enable the US Army to develop successful warfighting methods for the future. German historian Hans Delbruck's two strategies of warfare: exhaustion and annihilation, and American theorist Robert Leonhard's concepts of attrition and maneuver are examined. The strategy of warfare selected for a limited war in the precision engagement era will influence both doctrine and weapons procurement. Thus, determining if dominant maneuver or precision engagement becomes preeminent at the

⁹ Joel G. Himsl, "Dominant Maneuver vs. Precision Engagement: Finding the Appropriate Balance Between Soldiers and Technology," (Carlisle Barracks, PA: US Army War College Monograph, 1998): p. 10.

operational level or whether the US military achieves a balanced approach to warfighting in the 21st Century.

Third, US military operations from Korea, Vietnam and Kosovo are analyzed to determine the key factors causing the paradigm shift to firepower centric warfare. To understand the impact of technology on the recent battlefield and the dominance of firepower in the US Army's past, the evolution of US Army doctrine from 1950-2000 is examined. This will determine whether Army doctrine is firepower or maneuver based.

Finally, it is anticipated that future warfare will capitalize on information technologies and will seek to defeat the enemy by either attacking or threatening a critical vulnerability, rather than his source of strength. To accomplish this, the key to future warfare is gaining positional, functional, temporal and/or moral dislocation of the enemy. Using these concepts, in conjunction with the works of contemporary maneuver warfare theorists, a concept of operational warfare that is relevant to limited war in the precision engagement era is proposed. This analysis should determine whether dislocation can be achieved through precision engagement (firepower) alone or whether dominant maneuver is still required.

II. FUTURE OF WARFARE

“Every age had its own kind of war, its own limiting conditions and its own peculiar preconceptions.”¹⁰ The end of the Cold War in the early 1990s removed the bi-polar superpower barrier that had suppressed all of the old ethnic, tribal and religious embers left smoldering since the end of WWII.¹¹ Aggressive nationalistic and/or autocratic regimes now feel free to satisfy their hegemonic ambitions or to right perceived wrongs at the expense of a less fortunate neighbor state. America’s enemies are increasingly local tyrants who are intent upon gaining control over a part of the world only remotely linked to our national interests and domestic welfare. “The new strategic order has three dominant characteristics: international disorder, a revolution in military affairs and a crisis of popular culture.”¹² Within the United States itself, the nuclear standoff with the former Soviet Union in the past, national conscience is now directed at regional powers that march on the territory, rights or the well being of lesser states.

In limited war, success must be achieved with a limited expenditure of means. America’s “limited wars” are fought for limited aims over peripheral interests in the far-flung corners of the world. The lessons from these campaigns must be clearly understood to develop a realistic doctrine based on the US military’s experience in war. Thus, the United States’ wars are no longer fights for national survival, but rather wars of social conscience. Since the end of WWII, the US military has been relearning this lesson in places like Kunu-ri, Khe-Sanh, Beirut, Panama City, and Mogadishu. Limited wars range in intensity from acts of terrorism, at the lower end of the spectrum of military operations, to larger conflicts with intensities somewhat less than a full-

¹⁰ Carl Von Clausewitz, *On War*, Edited and Translated by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press, 1984): p. 593.

¹¹ Robert H. Scales Jr., “America’s Army in Transition: Preparing for War in the Precision Age,” *Army Issue Paper No. 3*, (Carlisle Barracks, PA: US Army War College, Strategic Studies Institute, 1999): p. 17.

¹² Williamson Murray, Jeffrey S. Lantis, and Christopher K. Ives, *Brassey’s Mershon American Defense Annual, The United States and the Emerging Strategic Environment, 1995-1996*, (Columbus, OH: Ohio State University, Brassey’s Inc., 1995): p. 53.

scale conventional war, such as Desert Storm.¹³ They are increasing in frequency, in destructiveness, and in the importance of the international issues they resolve.

Today's Geostrategic Environment and its Challenges

Through the year 2020, the US military will operate in a geostrategic environment of considerable instability, driven by significant demographic, geopolitical and technological dynamics. The United States will remain engaged internationally, retaining its leadership role in multi-national defense arrangements; promoting and protecting democratic values; protecting access to free markets; and protecting human rights around the world. The United States should enjoy relative strategic calm in the absence of a conventional military power that can threaten its national survival. However, the trends of the 1990s indicate that numerous potential enemies will be able to challenge US interests and national values on a regional basis, resulting in armed conflict.¹⁴

Potential enemies will modernize their military capabilities for regional conflict and take advantage of the lessons offered by late 20th Century conflicts. Potential enemies will attempt to achieve their objectives by varied means to offset our conventional and nuclear force superiority. Potential enemies will aggressively seek advantage in any perceived political, economic, social, informational or military vulnerability to achieve their objectives. "They will pursue a broad range of asymmetrically applied conventional and unconventional tactics and capabilities to attempt to deny/disrupt our access and oppose us on the battlefield."¹⁵

The expansion of free markets around the world launched a period of remarkable change. Economic integration and political fragmentation will continue to shape the geostrategic landscape of the 21st Century. These pressures will foster a continued period of uncertainty and

¹³ Robert H. Scales Jr., *"Firepower in Limited War,"* (Novato, CA: Presidio Press, 1997): p. x.

¹⁴ US Department of the Army, *Capstone Operational Concept (Draft)*, TRADOC Pamphlet 525-5, (Ft. Monroe, VA: HQ, TRADOC, 2000): p. I-1.

¹⁵ US Department of the Army, *Capstone Operational Concept (Draft)*, TRADOC Pamphlet 525-5, (Ft. Monroe, VA: HQ, TRADOC, 2000): p. II-1.

instability in the emerging multi-polar world. They will be manifested in distinct demographic, geopolitical, economic, energy, technological, information and military trends.

National Security Trends

The 1998 National Security Strategy provides an ambitious plan for remaining globally engaged with all four elements of national power: diplomatic, information, military and economic. The military's role is to respond to challenges short of war, and in concert with regional friends and allies, to win two overlapping major theater wars. The 1997 National Military Strategy is based on three tenets: to "shape" the international environment to prevent or deter threats; to "respond" across the full spectrum of potential crises; and to "prepare now" to meet the challenges of an uncertain future.¹⁶

The US Army has always played a central role in advancing the security interests of the nation. Its unique capabilities for conducting sustained land combat and controlling land, resources, and populations make it the force of choice in tomorrow's environment of international engagement. By their very presence, soldiers on the ground are America's most visible sign of deterrence and reassurance. The presence of American soldiers on allied territory is an unambiguous sign of US interests and a visible fact that a potential adversary cannot ignore.

The world in the foreseeable future will be faced with struggles between ethnic groups, competition for economic resources, and general instability rather than a protracted full-scale conventional war.¹⁷ America's security interests require a balanced military strategy and capability to meet each of the missions implicit to those interests. Arguably, it will be some time before the US military will have to confront a major peer competitor in battle; however, recent

¹⁶ Office of the Chairman, Joint Chiefs of Staff, *National Military Strategy of the United States*, (Washington, DC: Government Printing Office, May 1997): p. 3-4.

¹⁷ Joel G. Himsl, *Dominant Maneuver vs. Precision Engagement: Finding the Appropriate Balance Between Soldiers and Technology*, (Carlisle Barracks, PA: US Army War College Monograph, 1998): p. 10.

events of the last decade indicate that lesser conflicts fought for less than vital interests will continue to challenge us.

Joint Vision 2020 and Field Manual 3-0, Operations

JV 2020 builds upon and extends the conceptual template established in Joint Vision (JV) 2010 to guide the continuing transformation of America's military. The strategic concepts of decisive force, power projection, overseas presence, and strategic agility will continue to govern our efforts to fulfill those responsibilities and meet the challenges of the future.¹⁸ JV 2020 introduces the Chairman's vision of full-spectrum dominance achieved through the interdependent application of dominant maneuver, precision engagement, focused logistics and full-dimensional protection.¹⁹

FM 3-0 establishes the US Army's keystone doctrine for full-spectrum operations. "The doctrine holds warfighting as the Army's primary focus and recognizes that the ability of Army forces, in joint and multi-national operations, to dominate land warfare also provides the ability to dominate any situation in military operations other than war."²⁰ The US Army organizes, trains and equips its forces to fight and win the nation's wars and achieve directed national objectives. This ability to fight is combat power. Combat power is the total means of destructive and/or disruptive force that a military unit can apply against an enemy at a given time. The elements of combat power are maneuver, firepower, leadership, protection and information. Commanders combine these elements to create overwhelming effects against the enemy to destroy their will to

¹⁸ Office of the Chairman, Joint Chiefs of Staff, *Joint Vision 2020*, (Washington, DC: Government Printing Office, June 2000): p. 2.

¹⁹ Office of the Chairman, Joint Chiefs of Staff, *Joint Vision 2020*, (Washington, DC: Government Printing Office, June 2000): p. 6. Full-spectrum dominance is defined as the ability of US forces, operating unilaterally or in combination with multi-national and interagency partners, to defeat any adversary and control any situation across the full range of military operations.

²⁰ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. v.

fight. By synchronizing these effects at the decisive time and place, commanders convert the potential of forces, resources and opportunities into combat power.²¹

JV 2020 defines dominant maneuver as “the ability of joint forces to gain positional advantage with decisive speed and overwhelming operational tempo in achievement of assigned military tasks.”²² FM 3-0 defines maneuver “as the employment of forces on the battlefield in combination with fire, or fire potential, to achieve a position of advantage with respect to the enemy in order to accomplish the mission.”²³ Operational maneuver involves placing US Army forces at the critical time and place to achieve an operational advantage. Ideally, operational maneuver secures positional advantage before an enemy acts and either preempts enemy maneuver or ensures his destruction should he move. This allows commanders to set the terms of battle and take full advantage of tactical decisions.

JV 2020 envisions the evolution from maneuver to dominant maneuver through the union of maneuver warfare theory and emerging technology. Dominant maneuver seeks to capitalize on the strengths of information technology using highly trained, mobile forces, to dislocate an enemy and force him to react under unfavorable conditions. Thus, allowing the employment of decisive combat power that will compel an enemy to react from a position of disadvantage or quit. The operational concept of dominant maneuver is compatible with doctrine contained within FM 3-0. The ultimate purpose of maneuver is to concentrate combat power to achieve surprise, shock, momentum and dominance. The emerging technologies envisioned by JV 2020 will allow a logical extrapolation of maneuver warfare as described in FM 3-0.

JV 2020 defines precision engagement “as the ability of joint forces to locate; observe; discern and track objectives or targets; select, organize and use the correct systems; generate the

²¹ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 3-5.

²² Office of the Chairman, Joint Chiefs of Staff, *Joint Vision 2020*, (Washington, DC: Government Printing Office, June 2000): p. 20.

²³ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 4-3.

desired effects; assess results; and re-engage with decisive speed and overwhelming operational tempo as required throughout the full-spectrum of military operations.”²⁴ Precision engagement is the effects based engagement of targets throughout the depth of the battlefield. The pivotal characteristic of precision engagement is the linking of sensors, delivery systems and effects. The emerging information technology applied to current targeting processes (detect, decide, deliver, and assess) will allow American forces to decide which enemy capabilities are most significant, detect these capabilities, precisely attack them, and then assess the results. Precision engagement thus offers the prospect of US forces efficiently inflicting high rates of attrition on an enemy through standoff delivery capabilities and stealth technology. Precision engagement can reduce friendly exposure to enemy fires since fewer aircraft sorties (fixed or rotary) and artillery engagements will be necessary as a result of precision engagement efficiencies.²⁵ Precision engagement evolved from strike operations and thus corresponds to firepower.

FM 3-0 defines firepower “as the amount of fires that may be delivered by a position, unit or weapons system. Firepower provides the destructive force essential to defeating the enemy’s ability and will to fight.”²⁶ Operational fires are the operational-level commander’s application of lethal and non-lethal weapons effects to accomplish objectives during the conduct of a campaign or major operation. The operational concept of precision engagement is consistent with FM 3-0. Since firepower is simply the amount of fire (bullets, bombs, or artillery) that can be delivered against the enemy, precision engagement is therefore, highly efficient, technologically enhanced fires intended to defeat/destroy a target without wasting effort or munitions.

²⁴ Office of the Chairman, Joint Chiefs of Staff, *Joint Vision 2020*, (Washington, DC: Government Printing Office, June 2000): p. 22.

²⁵ Grant Steffan, “Dominant Maneuver and Precision Engagement,” *Unpublished Paper*, (FORSCOM, J5, Ft. McPherson, GA: 1997): p. 2.

²⁶ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 4-5.

Maneuver and firepower are complementary combat dynamics. Firepower magnifies the effects of maneuver by destroying enemy forces and restricting the enemy's ability to shift surviving forces to meet friendly maneuver. Maneuver creates the conditions for the effective use of firepower. One without the other makes neither decisive. Their combined use makes destroying larger enemy forces feasible and enhances protection for friendly forces. Operational maneuver and operational fires may occur simultaneously, but may have very different objectives. In general terms, operational fires are not the same as firepower; however, operational maneuver is most effective when it combines and complements such fires and exploits opportunities as they develop.²⁷

²⁷ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 4-5.

III. THEORY OF WAR

Professor James J. Schneider defines military theory as “a professionally justified, reliable system of beliefs about the nature of war.”²⁸ Military theory provides a structure for clear thinking and problem solving. Military theory serves as a “forcing function” to provide a dynamic model of war that reflects the underlying nature of military reality. This dynamic model must be dependable because military education and training are oriented towards the future. If the theory is wrong, then training and education will be wrong, resulting in the armed forces fighting the wrong war at the wrong time.²⁹

The first great exponent of military theory was the Prussian General Carl Von Clausewitz who defined war as “an act of force to compel the enemy to do our will.”³⁰ The accomplishment of this aim requires the creation and sustainment of a situation that is favorable to the forces under command. For a nation to impose its will on an enemy it must apply force (diplomacy, information, military, and/or economic). This force is dependent upon the available means and the national will to employ those means against an enemy. National will includes not only the desire to use the means, but the ability, purpose and direction to translate desire into action. A generally accepted formula for the ability of a nation to apply force in the pursuit of a national aim is as follows:

$$\text{FORCE} = \text{MEANS} \times \text{WILL}$$

The formula above implies, that if the United States wishes to compel an enemy to do its will, the United States must reduce the enemy’s ability to resist (generate combat power), by attacking the enemy’s means, will or leadership. Common sense dictates that by significantly reducing an enemy’s means, or will, the US Army can more easily achieve its aims. An enemy without

²⁸ James J. Schneider, “How War Works: The Origins, Nature, and Purpose of Military Theory,” (Ft. Leavenworth, KS: SAMS, US Army Command and General Staff College, 1995): p. 7.

²⁹ James J. Schneider, “How War Works: The Origins, Nature, and Purpose of Military Theory,” (Ft. Leavenworth, KS: SAMS, US Army Command and General Staff College, 1995): p. 7.

means must do what we demand or face destruction. An enemy without the will to use the means available must submit. Depending on the political situation, the choice of employing a particular strategy of warfare will be a conscious decision based on the strategic aims of the conflict and the means available to achieve them.

Methods of Warfare: The Roots of Maneuver and Attrition

Clausewitz wrote that there were two distinct strategies for conducting war, “one which was bent solely on the annihilation of the enemy; the other a limited warfare, in which annihilation was impossible, because the political aims involved in the war were small or because the military means were inadequate to accomplish annihilation.”³¹

German military historian Hans Delbruck developed these insights further dividing strategy into two categories: the strategy of annihilation and the strategy of exhaustion. The sole aim of a strategy of annihilation (*niederwerfungsstrategie*) is the destruction of the enemy’s armed forces through a decisive battle. The dominant mechanism of defeat is attrition. In the exhaustion strategy (*ermattungsstrategie*), a decisive battle is no longer the sole aim. A strategy of exhaustion seeks the enemy’s moral and logistical collapse through a combination of battle and maneuver. Success is determined by the accumulation of effects over time.³²

A strategy of annihilation is appropriate for a war fought for unlimited aims with unlimited means; a strategy of exhaustion is a war fought for limited aims with limited means. A perceived deficit in military means, Delbruck believed, drove the weaker side to adopt exhaustion, the stronger to side to seek annihilation. The correlation of forces entails a particular force posture. A strategy of exhaustion, implying weakness, suggests a defensive posture since

³⁰ Carl Von Clausewitz, *On War*, Edited and Translated by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press, 1984): p. 75.

³¹ Gordon A. Craig, “Delbruck: The Military Historian,” *Makers of Modern Strategy*, ed. M. Howard and P. Paret, (Princeton, NJ: Princeton University Press, 1986): p. 341.

³² Gordon A. Craig, “Delbruck: The Military Historian,” *Makers of Modern Strategy*, ed. M. Howard and P. Paret, (Princeton, NJ: Princeton University Press, 1986): p. 341.

the defense is the stronger form of war; a strategy of annihilation, implying strength suggests an offensive posture since the offense, though the weaker form of war is the more decisive with its positive aim.³³ Delbruck makes it clear that neither of these two forms are a variation of the other, nor is one superior to the other.³⁴

Aleksandr A. Svechin states, “the concepts of a victory by destruction (annihilation) and victory by attrition (exhaustion) apply not only to strategy, but to politics, economics and boxing, to any form of conflict, and should be explained in terms of the dynamics of the conflict themselves.”³⁵ Svechin cautions military strategists that the boundary between a victory of annihilation and a victory by exhaustion lies within rather than outside the military front. It is too simplistic to say that it is a war of annihilation if the center of gravity lies on the military front or that it is a war of exhaustion if the center of gravity lays on the economic or political fronts.

American military theorist Robert Leonhard defines these two opposing views of warfare as attrition and maneuver. Both emphasize two distinct approaches to warfare and two different purposes for maneuver. Leonhard defines attrition theory as the method of fighting wars, campaigns and battles in which the friendly force attempts to defeat the enemy through the destruction of the enemy’s mass.³⁶ The key words in this definition are “destruction” and “mass.” Attrition theory is a “bottoms-up” approach to war, because it focuses first upon bringing the enemy to battle and then seeks to defeat the enemy in that battle or in follow-on battles. Attrition warfare is based on the destruction brought about by firepower. Practitioners of attrition warfare seek to improve relative force ratios by achieving and sustaining an acceptable loss ratio over the enemy. “If the attrition warrior learns about maneuver, he sees it primarily as a way to

³³ Carl Von Clausewitz, *On War*, Edited and Translated by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press, 1984): p. 84.

³⁴ Gordon A. Craig, “Delbruck: The Military Historian,” *Makers of Modern Strategy*, ed. M. Howard and P. Paret, (Princeton, NJ: Princeton University Press, 1986): p. 342.

³⁵ Aleksandr A. Svechin, *Strategy*, ed. Kent D. Lee, (Minneapolis, MN: East View Publications, 1992): p. 65.

³⁶ Robert R. Leonhard, *The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991): p. 19.

get into the fight.”³⁷ In other words, maneuver is only used to gain a positional advantage on the enemy in order to deliver more effective fires.

By contrast, maneuver theory attempts to defeat the enemy through means other than simple destruction of his mass. Indeed, the highest and purest application of maneuver theory is to preempt the enemy, that is, to disarm or neutralize the enemy before the fight occurs. The maneuver practitioner seeks decision over the enemy by dislocation. Leonhard defines dislocation as the art of rendering the enemy’s strength irrelevant.³⁸ If the enemy cannot be preempted or dislocated, the maneuver practitioner will attempt to disrupt the enemy by destroying or neutralizing his center of gravity (preferably by attacking with friendly strengths through enemy weaknesses).³⁹

Theory of Dislocation: The Means to Defeat

Maneuver warfare seeks decision over the enemy by attacking or threatening the enemy’s critical vulnerability (weakness), instead of attacking the enemy’s center of gravity (strength), by utilizing dislocation.⁴⁰ Destruction or neutralization of the enemy’s critical vulnerability must not result merely in reduction of his capabilities, but rather in the paralysis of his forces. Having identified the critical vulnerability, the commander must decide how best to “destroy” or “neutralize” it while maintaining the coherence and cohesion of his own. This can be accomplished either directly (firepower) or indirectly (maneuver). Leonhard argues that through dislocation, the friendly force temporarily sets aside the enemy’s advantages (in numbers, positioning, technology, etc.) and causes those strengths to be unrelated to the outcome of the

³⁷ Robert R. Leonhard, *The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991): p. 19.

³⁸ Robert R. Leonhard, *The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991): p. 66.

³⁹ Robert R. Leonhard, *The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991): p. 19.

⁴⁰ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 5-7. FM 3-0 defines centers of gravity as “those characteristics, capabilities or locations from which a military force derives its freedom of action, physical strength, or will to fight.”

conflict. Once the enemy's strength is set aside, the friendly force is free to attack through the enemy's weakness to bring about defeat. Dislocation is the theoretical foundation for obtaining advantage in combat.⁴¹ Throughout history, armies have used various means (technology, organization, and maneuver) to dislocate the enemy's strength. There are at least four types of dislocation: positional, functional, temporal and moral.

Positional dislocation renders an enemy strength irrelevant by causing it to be in the wrong place, oriented in the wrong direction, or in the wrong formation to achieve its purpose. US Army forces can positionally dislocate an enemy force by physically removing them from the decisive point or by removing the decisive point away from the enemy force.⁴² An example of the first would be to use a feint in order to draw away the enemy's reserve. An example of the latter would be to maneuver away from an enemy force and seek a decision in the enemy's rear area or against a portion of the enemy's forces that cannot be reinforced in time.

Functional dislocation seeks to render enemy strengths irrelevant by making them temporarily dysfunctional through the disruption of key functions at the critical time. Rather than forcing or luring the enemy out of position, functional dislocation simply causes the enemy's strength to be neutralized or inappropriate.⁴³ The idea behind functional dislocation is to present an enemy force, through the use of combined arms, more problems than he can react to at once. A simple example of functional dislocation would be the use of field fortifications to render enemy artillery irrelevant or ineffective.

Temporal dislocation renders the enemy strengths irrelevant by making enemy actions, decisions and dispositions untimely. The aim is to strike the enemy at those times that he is not

⁴¹ Robert R. Leonhard, *The Principles of War for the Information Age*, (Novato, CA: Presidio Press, 1998): p. 64.

⁴² Robert R. Leonhard, *The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991): p. 67. FM 3-0 defines decisive point as "a geographic place, key event, or enabling system that allows commanders to gain a marked advantage over an enemy and greatly influence the outcome of an attack."

⁴³ Robert R. Leonhard, *The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991): p. 68.

ready: either before he is prepared, or after his strength has culminated. In short, they aim at turning the enemy's time flank.⁴⁴ Attacks on the enemy before he is ready take several forms. Preemption occurs when the friendly force moves with overmatching velocity against an enemy who cannot react in time (i.e. TO GET THERE FIRST with the most). Concentration occurs when the friendly force gathers and synchronizes his combat power before the enemy can (i.e. to get there first WITH THE MOST). It counts on achieving a tempo and decisiveness that confuse and surprise the enemy.

Moral dislocation is the offsetting of enemy strength through the defeat of the enemy's will. The aim of moral dislocation is to destroy the enemy's will to fight.⁴⁵ Moral dislocation capitalizes upon the intangibles of war (psychology, morale, surprise and fear) and derives from the combined effects of the other forms of dislocation.

With this discussion of the four principle means of defeat in maneuver theory, a comprehensive maneuver theory, applicable for America's future, can be proposed. But it must be reiterated that it is in the "definition of the means of defeat that maneuver warfare can be distinguished from other styles of warfighting."⁴⁶

Operational Warfare: Attrition vs. Maneuver

These two opposing styles of warfare dominate the tactical level of combat. Attrition warfare emphasizes firepower while maneuver warfare emphasizes mobility. At the tactical level, the style of war is directly related to the operational style of warfare that a military adopts. A military force that adopts a maneuver operational warfare style emphasizes movement over firepower at the tactical level of war, and vice versa. On the battlefield, at the tactical level of war, the elements of attrition and maneuver often exist simultaneously. Obviously, attrition, the

⁴⁴ Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War*, (Westport, CT: Praeger Publishers, 1994): pp. 154-157.

⁴⁵ Robert R. Leonhard, *The Principles of War for the Information Age*, (Novato, CA: Presidio Press, 1998): p. 65.

killing of the enemy, must occur in maneuver warfare just as maneuver often occurs in the deadliest war of attrition; maneuver and firepower are inseparable and complementary elements of combat power.

As the US Army continues to define its future, it will ultimately choose a preferred style of warfare somewhere along the spectrum between attrition and maneuver warfare. Although few armies have historically used either method exclusively, new and emerging technology is rapidly improving the US Army's capability to conduct both in ways that were heretofore unthinkable. Glenn K. Otis suggests that within the US Army, and military as a whole, emerging technology will allow a major shift in the maneuver-firepower balance.

I believe we're at the threshold of a major change for the combined arms team – the ascendancy of fires. What that means is that we, as a nation, will fight conventional battles using firepower of all kinds from longer ranges, much of it indirect – not eyeball to eyeball – using direct fire. We'll use long-range fires as the spearhead of the attack to the extent that the ground maneuver forces may only need to mop up after the fires. That's a totally different concept of operations. This concept aims at achieving decisive results while minimizing the usual high casualties of the direct fire battle.⁴⁷

Under attrition theory, the process of change and response that is war can only be set and kept in motion by fighting – by bringing about a change in relative strengths. Maneuver theory, while fully acknowledging Clausewitz's insistence on the need for physical and moral preparedness to fight, regards fighting as just one means among many of applying armed force.⁴⁸ This is succinctly put by Sun Tzu, "For this reason, attaining one hundred victories in one hundred battles is not the pinnacle of excellence. Subjugating the enemy's army without fighting is the true pinnacle of excellence."⁴⁹

⁴⁶ Robert R. Leonhard, *The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991): p. 76.

⁴⁷ Glenn K. Otis [GEN, US Army (Ret)], "The Ascendancy of Fires: The Evolution of the Combined Arms Team," Interview of General, *Field Artillery Journal*, (Ft. Sill, OK: US Army Field Artillery School, June 1995): pp.18-19.

⁴⁸ Carl Von Clausewitz, *On War*, Edited and Translated by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press, 1984): p. 184-185.

⁴⁹ Sun-Tzu, *The Art of War*, trans. Ralph D. Sawyer, (Boulder, CO: Westview Press, 1994): p. 177.

An effective operational campaign must be feasible, acceptable and suitable. It must possess these four characteristics: correct physical objectives; the execution of military operations from positions of relative advantage; the correct apportionment of combat power; and the maintenance of freedom of action.⁵⁰ The decisions the military makes will define the balance between attrition (firepower dominance) warfare, and maneuver warfare, and in turn will also define the role and purpose of maneuver for tomorrow's warriors. Because the choices between these strategies will significantly influence future operational art, tactics, doctrine, organization, and command and control philosophy, an analysis of the US Army's historical perspectives on warfighting and doctrine development is necessary.

⁵⁰ James J. Schneider, "Theory of Operational Art," SAMS Theoretical Paper No. 3, (Ft. Leavenworth, KS: SAMS, US Army Command and General Staff College, 1988): p. 17.

IV. HISTORICAL PERSPECTIVES

American Way of War

“Artillery fire which is promptly delivered ...is like a shot in the arm. It moves the man mentally and sometimes bodily, thereby breaking the concentration of fear.”⁵¹ The one undeniable fact about the American way of war is the willingness of Americans to expend firepower freely to conserve human life. The inherent value of human life is a political and moral imperative handed down throughout American military history and has passed into the ethic of the American military man. The tolerance bar America uses to measure its casualties has been driven ever downward by America’s changing attitudes toward conflict. Since the United States’ most recent wars have been fought to further peripheral interests abroad rather than for national survival, American’s are less willing as a nation to send their sons and daughters into harm’s way. The American people have never considered success on the battlefield achieved at too high a cost in human life a true military victory.

Throughout most of its history, the United States has incorporated a strategy of attrition in the conduct of its wars. The typical aim has been the destruction of the enemy’s armed forces by the overwhelming application of explosive firepower, mass numbers of soldiers, and technology. The allies won both world wars employing this strategy. The stalemate in Korea was guaranteed by this same kind of approach to warfighting. During the Vietnam War, the strategy of attrition reached its zenith as the American way of war.⁵² Combined with the zealous belief in the killing power of technology, American commanders employed overwhelming firepower against the North Vietnamese army and Viet Cong. It was a strategy based on the attrition of the enemy through a prolonged defense and made no allowance for decisive offensive action.⁵³ The

⁵¹ S.L.A. Marshall, *Men Against Fire*, (New York, NY: William Morrow and Co., 1947): p. 191.

⁵² John F. Antal, “Thoughts About Maneuver Warfare,” *Maneuver Warfare: An Anthology*, ed. Richard D. Hooker, (Novato, CA: Presidio Press, 1993): p. 62.

⁵³ Dave R. Palmer, *Summons of the Trumpet*, (New York, NY: Ballantine Books, 1984): p. 148.

Kosovo campaign achieved its objectives without a single NATO combat casualty. From a military standpoint this is unprecedented in the history of warfare. The United States and its allies had for the first time demonstrated the capability to wage war risk free without soldiers on the ground being involved in direct combat. Technology combined with firepower is leading to a further emptying of the battlefield.

To its credit the American military began to sense these shifts in battlefield dynamics as early as the Korean War. This war was the first of America's modern wars in which limited strategic interests did not justify unlimited commitment. Combat commanders in the field, quick to recognize the importance of preserving the lives of their soldiers, routinely modified their way of fighting to achieve success at minimum cost. The most pervasive doctrinal adjustment made during the conduct of the war was to increase the firepower available to maneuver forces in close combat and to lessen the exposure of soldiers to direct attack by the enemy. As General Matthew B. Ridgway said in 1951, "Steel is cheaper than lives and much easier to obtain."⁵⁴

Strategic commitments in Western Europe prevented the United Nations forces from employing the number of divisions necessary to fight WW II style battles of movement against what was primarily an infantry based enemy. Consequently, as the Korean War stalemated along a linear front in the summer of 1951, debate about the merits of maneuver warfare and deep combined arms penetrations were necessarily set aside in favor of superior firepower and attrition warfare.

During the Battle of Soryang in the spring of 1951, twenty-one battalions of artillery fired over three thousand rounds in five days in support of a single push by X Corps.⁵⁵ Two years later, at Pork Chop Hill, nine battalions fired over thirty-seven thousand rounds in less than

⁵⁴ Matthew B. Ridgway, *Tactical Observations of the Commanding General*, (Eighth United States Army, Korea, May 1951): p. 1. USACGSC 17055.73.

⁵⁵ Robert H. Scales Jr., "America's Army in Transition: Preparing for War in the Precision Age," *Army Issue Paper No. 3*, (Carlisle Barracks, PA: US Army War College, Strategic Studies Institute, 1999): p. 18.

twenty-four hours in support of a single regimental assault.⁵⁶ As the weight of firepower increased, the densities of infantry formations decreased in direct proportion. By the winter of 1950-51, General Ridgway conducted most of the Eighth Army counterattacks at regimental level.

Similarly in Vietnam, commanders learned quickly and adapted an attrition, firepower intensive, method of warfare. General William DePuy, commanding the 1st Infantry Division in 1966-67, realized that artillery and tactical aircraft were responsible for most enemy casualties. American casualties, on the other hand, came principally from three sources: enemy mortars, concentrations of enemy small arms fire delivered against infantry units in set-piece ambushes, and mines. DePuy's solution was simply to use much smaller infantry units to locate and fix the enemy, usually squads and platoons, and then orchestrate a varied medley of supporting firepower systems to do most of the killing.⁵⁷ Only if absolutely necessary, would DePuy commit his ground tactical reserves to complete the destruction of the enemy.

DePuy was among the first to grasp the fact that modern firepower, technology and the imperative to win at lower cost together were sufficient to cause a shift in the relationship between firepower and maneuver. DePuy believed that the balance had in fact shifted to the point that firepower systems, not infantryman, had now become the central instrument for achieving decisive effect on the battlefield. In Vietnam, DePuy believed the doctrinal maxim that firepower supports maneuver could well have been reversed.⁵⁸

An extreme example of the debilitating influence of firepower late in the Vietnam War comes from a corps artillery commander in the Central Highlands region of Vietnam who reported that his command fired almost two million rounds in seven months of relatively inactive

⁵⁶ S.L.A. Marshall, *Pork Chop Hill*, (New York, NY: The Berkley Publishing Group, 2000): p. 146.

⁵⁷ Paul H. Hebert, *Deciding What Has to Be Done: GEN William E. DePuy and the 1976 Edition of FM 100-5, Operations*, Leavenworth Paper No. 16, (Ft. Leavenworth, KS: Combat Studies Institute, 1988): p. 19-23.

⁵⁸ John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982*, (Ft. Monroe, VA: United States Training and Doctrine Command, 1984): p. 8-9.

combat. Equating by his best estimate, to a ratio of 1,000 rounds or roughly \$100,000 per kill. Lives were saved to be sure, but infantryman on the ground rightfully complained that they had lost flexibility and control of ground combat actions.⁵⁹

Experience in real combat in Vietnam demonstrated at least two shortcomings with DePuy's fire-centered doctrine. First, the North Vietnamese army and Viet Cong adapted their own tactics over time to lessen the killing effects of our fires by "hugging" American units in close combat, dispersing large formations, hiding in built-up areas and the jungle, and becoming masters of camouflage. Second, pressure late in the war to reduce casualties even further served to pervert DePuy's methods to the extreme. Firepower became too much of a good thing in which every ground contact was elevated to the division command level to ensure all available artillery, tactical aircraft, and gunships could influence the fight regardless of the ground commander's scheme of maneuver.

The loss of eighteen US Army Rangers in 1993 in close, back alley fighting in Somalia dramatically underscored a corollary to DePuy's maxim: a tactical engagement fought for too high a price for too little return might very well by itself determine the strategic outcome of a national endeavor.

Recent experience in Kosovo now seems to suggest that the bar continues to lower with respect to American casualties as the country begins to accept the burden of limited wars fought to prevent harm to one ethnic or cultural group by another. Some even suggest that the bar has been lowered so much for wars like Kosovo that a ground campaign with its attending risk of casualties is a thing of the past at least for American troops. Perhaps, the argument goes, the precision revolution has given us the ultimate tool, the "silver bullet," to win future wars by firepower alone.⁶⁰ Instead of attrition, the American way of war is becoming one of exhaustion;

⁵⁹ Robert H. Scales Jr., *Firepower in Limited War*, (Novato, CA: Presidio Press, 1997): p. 287-296.

⁶⁰ Michael Ignatieff, *Virtual War: Kosovo and Beyond*, (New York, NY: Metropolitan Books, 2000): p. 164-176.

using precision engagement technologies to strike the enemy's nerve centers (command posts, computer networks, electrical grids, radars, telephone networks) that direct the enemy's war effort. Destroying the creditability and reliability of the data on which the enemy bases his decisions becomes just as effective as killing his people or wrecking his cities.

Evolution of US Army Doctrine, 1973-2000

Doctrine is "the concise expression of how Army forces contribute to unified action in campaigns, major operations, battles and engagements. Army doctrine also describes the Army's approach and contributions to full spectrum operations on land. Army doctrine is authoritative but not prescriptive."⁶¹ When well conceived and clearly articulated, doctrine can instill confidence throughout an army and have a profound effect on its performance in war. An army's doctrine is inseparable from its past; therefore, rigorous study of the past is as important to articulating a credible doctrine as is the forecasting of future trends and threats.

Doctrine reflects the times in which it is written. This was especially true of the 1976 edition of FM 100-5, Operations (Active Defense), that was a direct response to the conditions of the early 1970s. Specifically, the condition of the US Army immediately after Vietnam, a major shift in American foreign and defense policy (ending of the selective service draft), and a relative decline in the Army's budget.⁶²

The 1976 edition of FM 100-5 differed from its predecessors in four key ways. First, it represented a new role for military doctrine as a key-integrating medium for an increasingly complex military bureaucracy. Second, it heralded dramatic changes within the US Army. Third, it was an attempt to demystify doctrine by avoiding abstract ideas and prescribing "how to fight."

⁶¹ US Department of the Army, *Operations (DRAG Edition)*, Field Manual 3-0, (Washington, DC: US Government Printing Office, 2000): p. 1-13.

⁶² Paul H. Hebert, *Deciding What Has to Be Done: GEN William E. DePuy and the 1976 Edition of FM 100-5, Operations*, Leavenworth Paper No. 16, (Ft. Leavenworth, KS: Combat Studies Institute, 1988): p. 3.

Lastly, the manual was the personal project of General DePuy, who became the first Commander, Training and Doctrine Command in 1973.

Three major concerns with the 1976 edition arose almost immediately sparking a debate that would last seven years until the publication of the 1982 edition of FM 100-5, Operations (AirLand Battle). Many felt the 1976 edition placed too much emphasis on the defense at the expense of the offense. In stressing force ratios and the destruction of enemy forces, the manual ignored the psychological dimensions of warfare, and focused on attrition strategy with little mention of maneuver above the tactical level. In emphasizing battle at and below division level, the doctrine did not adequately address the operational level of war (the conduct of campaigns by corps and higher to bring about decisive battles on favorable terms). The manual also focused too narrowly on combat against the Warsaw Pact forces in Central Europe excluding contingencies in the rest of the world.

“General DePuy came to recognize what doctrine should be, that is, an approved, credible, overarching concept of how to wage war that permeates the Army and lends coherence to all its myriad activities.”⁶³ Although the 1976 edition was not well received by the US Army at large, General DePuy was able to define doctrine as the key integrating mechanism and an issue of central importance to the Army. This would lead to a revolution in post-WWII American military thought. Subsequent editions of FM 100-5, although they have differed in substance, are evolutionary in nature from the 1976 edition because of this basic fact.

The 1982 edition of FM 100-5 reflected a more confident tone of an offense-oriented military operational doctrine reflective of the changes in the national strategic perception. It recognized that the US Army of the 1980s could find itself at war in any number of places besides Central Europe. The 1982 edition acknowledged that “the AirLand Battle will be dominated by

⁶³Paul H. Hebert, *Deciding What Has to Be Done: GEN William E. DePuy and the 1976 Edition of FM 100-5, Operations*, Leavenworth Paper No. 16, (Ft. Leavenworth, KS: Combat Studies Institute, 1988): p. 106.

the force that retains the initiative, and with deep attack and decisive maneuver destroys its opponent's abilities to fight and organize in depth.”⁶⁴

Four key tenets defined AirLand Battle according to the 1982 edition: initiative, depth, agility and synchronization. These tenets formed the basis for operational maneuver that envisioned a succession of actions guided by the logic of making the rival system irrelevant in the context of its own aim.

“AirLand Battle doctrine ...is based on securing the initiative and exercising it aggressively to defeat the enemy. Destruction of the opposing force is achieved by throwing the enemy off balance with powerful initial blows from unexpected directions and then following up rapidly to prevent his recovery. Army units attack the enemy in depth with fire and maneuver and synchronize all efforts to attain the objective. They will maintain the agility necessary to shift forces and fires to the points of enemy weakness.”⁶⁵

For the first time in western military doctrine conceptual tools were now available for commanders to practice operational art. A methodology now existed for corps and higher commanders to link tactical battles to operational objectives through operational art and the design of campaigns.⁶⁶

The 1982 edition also significantly departed from its predecessor by emphasizing maneuver as the “dynamic element of combat.” Stating that firepower provided the “enabling destructive force essential to successful maneuver.” Even more importantly it defined operational level maneuver for the first time in US Army doctrine. The object of operational level maneuver was to gain strategic advantage by focusing maximum strength against the enemy's weakest point.

⁶⁴ US Department of the Army, *FM 100-5: Operations*, (Washington, DC: HQ, Department of the Army, August 1982): p. 4-1.

⁶⁵ US Department of the Army, *FM 100-5: Operations*, (Washington, DC: HQ, Department of the Army, August 1982): p. 2-1.

⁶⁶US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 2-3. Operational art is the use of military forces to achieve strategic goals through the design, organization, integration and conduct of theater strategies, campaigns, major operations and battles. A campaign is a related series of military operations aimed at accomplishing a strategic or operational objective within a given time and space.

The 1982 edition also placed considerably more emphasis on leadership and the moral domain of battle. Recognizing that leadership and morale were not measurable, but rather enduring military constants, by stating, “when we speak of destroying the enemy’s forces ...nothing obliges us to limit this idea to physical forces; the moral element must also be considered.”⁶⁷ Thus, conceptually, US Army doctrine now moved away from a strategy of attrition to one of maneuver. Recognizing that the enemy could be defeated through dislocation, as expanded upon in Section III, to include not only moral, but also positional, functional, and temporal dislocation as well.

The 1986 edition of FM 100-5, Operations, refined the 1982 edition by expanding the idea of the operational level of war, putting the operational environments of offense and defense in better balance, and highlighting the synchronization of the close-deep-rear battles of the deep, extended battlefield. Significant was the stronger fusing of air and land battle into closely concerted operations of air power and ground forces.

The 1993 edition of FM 100-5, Operations, declared the US Army to be a strategic force with a strategic view. It envisioned that the US Army would operate across the operational continuum of war, conflict, and peacetime operation. Thus joining the operational level of war to the strategic realm, an unprecedented departure in US Army doctrine. It evolved from the previous two editions (AirLand Battle doctrine) and the insights of a new strategic era, the operations doctrine of 1993 joined continuity with change.⁶⁸ The dominating idea and key change of the 1993 edition was the new vision of depth and simultaneous attack. To the three spatial dimensions of battlefield organization established in the 1986 edition (deep-close-rear), time was added as the predominant dimension of the US Army’s fighting doctrine. The US Army would now maneuver in space and time to gain positional advantage over an enemy. The twin

⁶⁷ US Department of the Army, *FM 100-5: Operations*, (Washington, DC: HQ, Department of the Army, August 1982): p. 8-4.

⁶⁸ John L. Romjue, *American Army Doctrine for the Post-Cold War*, (Ft. Monroe, VA: United States Training and Doctrine Command, 1997): p. 131.

concepts of battle command and battle space clarified the essence and art of command on the technologically expanded battlefield of the early 1990s. The elements of combat power were expanded from maneuver, firepower, and force protection to include leadership.

Section II discussed some key doctrinal concepts of the 2000 edition of FM 3-0. However, it is important to note that the 2000 edition departs significantly from the 1993 edition in several key areas. In recognition of the strategic environment of the late 1990s, the doctrine expands the traditional operational environments of offense and defense to include stability and support operations. The battlefield organization of close-deep-rear operations was changed to decisive, shaping and sustaining to better address the purpose and timing of each Army unit involved in an operation.⁶⁹ This allows for noncontiguous operations and acknowledgement that the linear battlefield is likely a thing of the past. The elements of combat power were expanded again to include information to reflect the increased influence of information and technology on US Army operations.

The most significant problem in warfare today is the need to properly balance the elements of combat power (maneuver, firepower, protection, leadership, and information) to create a force capable of decisive action across the spectrum of operations. Firepower and maneuver remain complementary combat dynamics. As FM 3-0 states, “Although one might dominate a phase of an action, the synchronized effects of both are present in all operations. One without the other makes neither decisive.”⁷⁰ Contrary to the wishes of many, close combat may never disappear from future battlefields. The choice has always been one of fighting to move (attrition) or moving to fight (maneuver). The outcomes of battles, and hence campaigns will

⁶⁹US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 4-22, 4-23. Decisive operations directly achieve the mission of the higher headquarters. Shaping operations create and preserve conditions for success of the decisive operation. Sustaining operations enable shaping and decisive operations by assuring the freedom of action and continuity.

⁷⁰ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 4-5.

always depend upon the ability of the US Army forces to close with and destroy enemy forces with direct fire and supporting indirect fires. US Army doctrine has evolved from 1973-2000 to accurately reflect this reality. The surest means of limiting friendly casualties and swiftly ending a campaign is to combine the elements of combat power to meet changing requirements while ensuring overwhelming effects against the enemy.⁷¹

⁷¹ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 4-3.

V. “SMALL FORCE” MANEUVER

Emerging Joint and Army doctrine is based on rapid, flexible, and opportunistic maneuver. The traditional understanding of maneuver is a spatial one; that is, we maneuver in space to gain a positional advantage. However, we must consider maneuver with respect to time as well; that is generating a faster operational tempo than the enemy to gain a time advantage. Maneuver through the dimensions of time and space allows an inferior force to achieve decisive superiority at the time and place of their choosing.⁷² To accomplish this, Martin Van Creveld asserts that there are six vital elements inherent to maneuver warfare: tempo, Schwerpunkt (focus), surprise, combined arms, flexibility and decentralized command.⁷³ The most vital element is tempo.

Tempo is not the same as speed. Richard Simpkin describes tempo as the “operational rate of advance” consisting of seven elements: physical mobility; tactical rate of advance; quantity and reliability of information; command, control, communications and computers, information, security and reconnaissance (C4ISR) timings; times to complete moves; pattern of combat support; and pattern of logistic support. Simpkin believes it consists of two components: mounting tempo (all of the activities prior to crossing the line of departure) and execution tempo (the activities after crossing the line of departure).⁷⁴ Actions that follow this pattern are often referred to as the “Boyd Cycle”.⁷⁵ The idea is to get inside the loop by transitioning from one mode of action to another faster than the enemy can react. Through the use of greater tempo and

⁷² William D. Wunderle, “Yin and Yang: The Relationship of Joint Vision 2010’s Concepts of Dominant Maneuver and Precision Engagement,” (Ft. Leavenworth, KS: School of Advance Military Studies Monograph, 1998): p. 32.

⁷³ Martin Van Creveld, *Air Power and Maneuver Warfare*, (Maxwell AFB: Air University Press, 1994): p. 2-8. Schwerpunkt is the object of focus for the efforts of all subordinate units, generally expressed in terms of a particular friendly unit; literally translated from German as the “heavy point.”

⁷⁴ Richard E. Simpkin, *Race to the Swift: Thoughts on 21st Century Warfare*, (London: Brassey’s Defense Publishers, 1985): pp. 106-107.

⁷⁵ Robert R. Leonhard, *The Art of Maneuver: Maneuver Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991): p. 51. Named for COL John Boyd, the term refers to the understanding that war consists of the repeated cycle of observation, orientation, decision and action.

velocity (movement over time), maneuver warfare seeks to establish a pace that the enemy cannot maintain so that with each friendly action the enemy's reactions are increasingly late, until eventually, the enemy is overcome by events. Colonel John Boyd, in his briefing on the "Patterns of Conflict," offers perhaps the best explanation:

Conflict can be seen as time-competitive observation-orientation-decision-action cycles. Each party to a conflict begins by observing. He observes himself, his physical surroundings and his enemy. On the basis of his observation, he orients, that is to say, he makes a mental image or "snapshot" of his situation. On the basis of this orientation, he makes a decision. He puts the decision into effect, i.e. he acts. Then because he assumes his action has changed the situation, he observes again, and starts the process anew.⁷⁶

Move, Strike and Protect

J.F.C. Fuller pointed out that armies in war conduct three major activities: they move, strike and protect.⁷⁷ The key functions of command, intelligence and logistics are enablers to allow armies to execute the three basic functions of moving, striking and protecting. FM 3-0, Operations, touches on these activities through the articulation of the elements of combat power: maneuver (move), firepower (strike), leadership (command), protection (protect) and information (intelligence).⁷⁸ These five activities combine in battles, campaigns and wars to bring about decision.⁷⁹ The problem with Fuller's discussion of move, strike and protect is that he did not examine the relationship among them. Likewise, US Army doctrine does not grasp the nature of their interaction. The dynamic relationship among the activities of move, strike and protect is

⁷⁶ William S. Lind, *The Theory and Practice of Maneuver Warfare*, (Boulder, CO: Westview Press Inc, 1985): p. 5.

⁷⁷ J.F.C. Fuller, *The Foundations of the Science of War*, (London: Hutchinson & Co., LTD., 1926): pp. 83, 256, 335.

⁷⁸ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 4-2.

⁷⁹ US Department of the Army, *FM 100-5: Operations*, (Washington, DC: HQ, Department of the Army, 1986): p. 11.

founded on the nature of the tradeoffs among them. In short, to fully conduct any one of the three activities, a military unit must sacrifice capability in the other two activities.⁸⁰

An understanding of the tradeoff relationship among move, strike and protect in war is basic to good tactics, operational art and strategy. Robert Leonhard summarizes the dynamics of the tradeoff as follows:

The trained commander should be able to observe an enemy attacking and immediately understand that the enemy's ability to move and protect has been diminished. Likewise, if he encounters a force that is in a maximum protective posture, he should intuitively grasp that the force cannot move or strike without first reducing its security. Finally, when he observes a unit moving, he should immediately reason that the unit is poorly disposed to strike or protect.⁸¹

The basic principle of the theory is that a military unit cannot simultaneously move, strike, and protect themselves well. Leonhard believes that commanders and military thinkers of the past have developed three operational theories of style in war: positional theory, maneuver theory and interchangeability theory. Each theory is designed to emphasize two of the activities (move, strike, and protect) at the expense of the third. The dynamic that makes these three types of theory practicable is that in each instance, the third activity is accomplished implicitly rather than directly.

Positional theory emphasizes the two functions of movement and protection, while avoiding a direct strike on the enemy. In positional theory, striking is implicitly accomplished through a combination of the other two activities. Positional theory exists in our US Army fighting doctrine today. One of the five forms of maneuver in the attack is the turning movement. A turning movement is used against an enemy that is occupying a strong defensive position. Rather than directly attacking the enemy where he is strong, a turning movement applies positional theory by moving to an area on the battlefield in a protective formation from which a

⁸⁰ Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War*, (Westport, CT: Praeger Publishers, 1994): p. 18.

⁸¹ Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War*, (Westport, CT: Praeger Publishers, 1994): p. 21.

friendly force can threaten the enemy's supply lines or some other vulnerability. The enemy is thereby forced to abandon his position and either attack the friendly force or move to another location.⁸²

In maneuver theory, protection is both sacrificed and implicitly accomplished. The idea in maneuver theory is that through momentum, an attacking army can both defeat the enemy and implicitly protect itself. Maneuver theory strives to present the enemy with a target moving so quickly and threateningly that it cannot be successfully attacked. Maneuver theory prevails in current doctrine as exploitation and pursuit. Following a successful battle, attacking forces will seek to move quickly and maintain contact with (strike) withdrawing enemy forces. In this instance, the commander will usually employ high-speed avenues of advance and organize pursuing forces for speed and aggressiveness. Naturally, this disposition sacrifices protection. But since the enemy has temporarily lost cohesion and is in retreat, the commander can assume risk successfully with maneuver theory. In fact, the momentum of his advance implicitly protects him by keeping the enemy on the run.⁸³

Interchangeability theory suggests that firepower can be substituted for maneuver in war. It recognizes the fact that movement in war is inherently dangerous. Therefore, rather than move, the army will remain in a protected posture and simply fire at the enemy. Movement is accomplished through the range and lethality of precision strike operations. Although the theory of interchangeability is relatively new, the desire to strike the enemy at ever-greater ranges and forego friendly movement is perhaps as old as gunpowder or even as old as thrown rocks. Accuracy at a distance changes the nature and objective of combat. Instead of closing with an enemy, the object is to destroy him at long range, accelerating a long-standing trend: the battlefield has been emptying for centuries. Indeed striking from a distance makes total force

⁸² Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War*, (Westport, CT: Praeger Publishers, 1994): p. 24.

⁸³ Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War*, (Westport, CT: Praeger Publishers, 1994): p. 25.

protection a meaningful goal in modern warfare.⁸⁴ A static defense tends to subsist on the strengths of interchangeability theory. Since the enemy is expected to attack, the defender standing still accomplishes the movement function implicitly. By remaining protected and conducting effective long range precision strikes against the enemy, the force applying interchangeability theory avoids the dangers of moving and instead seeks to accomplish the mission through lethality and invulnerability; perhaps eliminating the need for maneuver altogether.

However, war is a complex event, and combat solutions are rarely purely technological. The aim of future US ground force operations should be the rapid simultaneous dislocation of the enemy, not its total destruction.

Operational Maneuver Concept

All the attributes of national military power still have a vital role. Airpower and seapower shape the battlespace and create the foundation for battlespace dominance. Naval forces secure the movement of critical ground forces through the world's sea-lanes and augment military power ashore with sea-based air and missile power. Land-based airpower not only attacks to disrupt and degrade the enemy's capacity to wage war, but also protects and delivers ground forces to critical points inside the battlespace.⁸⁵

However, landpower plays the critical role. The readiness of American ground forces to deploy quickly and fight from bases both in the United States and from allied territory eliminates doubt in the minds of potential enemies whether the United States can or will intervene.⁸⁶ When fighting breaks out, US ground forces break into the enemy's heartland to terminate the conflict on terms that the United States and its allies will accept.

⁸⁴ Michael Ignatieff, *Virtual War: Kosovo and Beyond*, (New York, NY: Metropolitan Books, 2000): p. 169.

⁸⁵ Douglas A. Macgregor, *Breaking the Phalanx*, (Westport, CT: Praeger Publishers, 1997): p. 143.

⁸⁶ Bruce W. Watson, Bruce George, Peter Tsouras, and B.L. Cyr, *Military Lessons of the Gulf War*, (Novato, CA: Presidio Press, 1991): p. 214-216.

Victory in future land warfare will depend on the ability of the US Army to deploy quickly and advance rapidly in great strength into the depths of the enemy's territory.⁸⁷ This action fundamentally neutralizes the enemy's military capability, ensures a rapid collapse of his command system, and terminates the conflict. This will require joint, simultaneous attack in depth in which speed of movement and decisions are paramount. In effect, the importance of preventing the enemy from bringing his weapons of mass destruction to bear against friendly centers of gravity combined with the need to achieve a much higher operational tempo in future offensives elevates the traditional ground combat tactics of infiltration to the operational level in land warfare.⁸⁸ Macgregor suggests a new operational structure that consists of four overlapping operational phases: preparatory/initial entry; infiltration/penetration; exploitation; and termination.⁸⁹

Preparatory/initial entry phase: In this phase, air, land and sea forces move from a condition of strategic dispersal to strategic concentration while all forces either conduct or prepare to conduct joint simultaneous attacks in depth. The minimal precondition for success in this phase is aerospace denial. Strategic knowledge of the enemy's operational intentions and capabilities is an important element of this comprehensive joint response to regional conflict or crisis.

Infiltration/penetration phase: All operations in the infiltration phase will be highly opportunistic in character. Autonomy and independence at the tactical level will have to be supported by decentralization at the operational level. This will facilitate the use of combined arms in the context of discovering, defeating, or destroying the enemy. Advanced surveillance and armed reconnaissance, integrated C4ISR, enhanced mobility, accurate weapon and navigation

⁸⁷ US Department of the Army, *Capstone Operational Concept (Draft)*, TRADOC Pamphlet 525-5, (Ft. Monroe, VA: HQ, TRADOC, 2000): p. III-4.

⁸⁸ Douglas A. Macgregor, *Breaking the Phalanx*, (Westport, CT: Praeger Publishers, 1997): p. 145.

⁸⁹ Douglas A. Macgregor, *Breaking the Phalanx*, (Westport, CT: Praeger Publishers, 1997): p. 148.

systems, as well as superior human talent and potential, allow for the rapid penetration and infiltration of an enemy's military defenses regardless of his deployment scheme.

Exploitation Phase: Today, new technology extends the deep attack to the enemy's heartland in a very short period over great distances. Existing and future improvements in force-protection, lethality, mobility and information collection and dissemination will compress this operation into days or hours, depending on the size of the geographic region involved. As this phase is ending, the National Command Authority (NCA) will begin to examine options for the rotation of fighting forces to reconstitute and replace these forces with fresh elements from the continental United States.

Termination: It is probable that the disintegration of the enemy apparatus during the exploitation phase will result in the termination of hostilities in the areas where exploitation attacks are in progress and before a formal peace arrangement is made. This means that US ground forces must be prepared to administer and control large populated areas of enemy territory until legitimate indigenous administration can be restored.

The goal of these patterns of operations is to rapidly achieve a seamless, overmatching dominance. The ability to perceive and overwhelmingly dominate the close fight in all dimensions and in all environments (visible, electromagnetic, temporal, and human/moral at the time and place of our choosing) ensures that the fight occurs in deliberate, rather than hasty, uncertain conditions.⁹⁰

Experience has shown that the best way for an offensive force to succeed on a firepower dominant battlefield is to employ an operational offensive-tactical defensive method of war.

“The apparent shift in the maneuver-firepower balance in favor of firepower works to the disadvantage of a force that seeks to intervene in a distant theater and operate offensively against

⁹⁰US Department of the Army, *Capstone Operational Concept (Draft)*, TRADOC Pamphlet 525-5, (Ft. Monroe, VA: HQ, TRADOC, 2000): p. III-7.

a static foe.”⁹¹ The long-standing tenet of warfare in the modern age that a firepower dominant battlefield environment favors the defensive echoes Clausewitz’ dictum that “the defensive form of warfare is intrinsically stronger than the offensive.”⁹²

Conceptually, conduct of an operational offensive-tactical defensive involves the four operational concepts from JV 2020 detailed earlier (dominant maneuver, precision engagement, focused logistics, and full-dimensional protection) as illustrated in the next few paragraphs.

During the initial entry phase, the key task is to secure access to sea and air ports of debarkation (SPOD/APOD) and achieve aerospace superiority. This is followed by the infiltration/penetration phase. During this phase the secret to success against a defending enemy would be to paralyze him with precision fires just long enough to allow an early arriving force to simultaneously occupy multiple points throughout the enemy’s area of operations and saturate the enemy’s most vital areas with small, mobile, autonomous and highly lethal, combined arms combat elements.

The attacking forces would maneuver rapidly to place themselves astride the enemy’s lines of communication. At this point, the enemy has two choices: to remain static and wither; or leave the security of his defenses to attack the force to his rear. The friendly force is now set in prepared defenses and is ready to receive the enemy counterattack posing an additional dilemma for the enemy commander.

Defenders, like the Serbs in Kosovo, who dispersed and went to ground in order to survive precision attacks, were particularly vulnerable to this type of operational maneuver because the attacker could take advantage of the enemy’s thinly held battlespace to locate and then occupy voids left uncovered by fire and observation.⁹³

⁹¹ Robert H. Scales Jr., “America’s Army in Transition: Preparing for War in the Precision Age,” *Army Issue Paper No. 3*, (Carlisle Barracks, PA: US Army War College, Strategic Studies Institute, 1999): p. 23.

⁹² Carl Von Clausewitz, *On War*, Edited and Translated by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press, 1984): p. 358.

⁹³ Douglas A. Macgregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century*, (Westport, CT: Praeger Publishers, 1997): p. 148.

In order to realize maneuver dominance, ground combat units would not need to physically secure key terrain or directly confront enemy strongpoints. Instead, they would simply occupy uncontested terrain close enough to control and thus dominate vital areas through direct observation and the use of short-range precision weapons. A once cohesive body of enemy forces would now be divided into isolated pockets unable to communicate, sustain themselves without resupply, or be reinforced.

The advantages of time and initiative are now with the friendly force. The enemy cannot linger. He must either fight from a position of disadvantage or wither. Once set in the enemy's vital areas the friendly force is in a position to call the tactical shots now that he can leverage the power of the defensive to his advantage.

Modern precision weapons strengthen the defensive phase of an offensive-defensive stratagem. The range and lethality of the US military's superior firepower expands the killing zone making it far more expensive for a less sophisticated enemy to move unprotected in the open. The friendly force now has the advantage of watching and engaging with firepower from positions well out of the reach of the enemy's shorter lethal reach while remaining relatively secure in fixed, covered positions. The enemy is trapped and can escape only by massing to attack. Once he masses, he becomes a perfect target for destruction by precision engagement.

The US Army learned from its experiments with digitization at the National Training Center in 1997, that a properly internettted maneuver brigade provided with an immediately available suite of aerial sensors could expand its area of control by a factor of four. Superior situational awareness allowed units to locate all friendly units and most of the enemy immediately around them. Units participating in these force-on-force experiments discovered that the ability to spread out, yet still remain cohesive and able to maneuver, freely allowed them to outflank and surround much larger units in open combat.⁹⁴

⁹⁴ Dennis Steele, "Task Force XXI Advanced Warfighting Experiment at NTC," *Army*, (Washington, DC: Association of the United States Army, May 1997): p. 14-23.

If US ground forces have been successful at gaining positional advantage and paralyzing the enemy at the operational level then we must seek to finish the fight in close combat with the smallest possible loss of life. Once secure in operational sanctuaries, tactical units will expand outward to find the specific location of previously un-located enemy ground units. FM 3-0 refers to this type of distributed maneuver as noncontiguous operations where units are linked by the concept of operations but do not share a tactical boundary.⁹⁵ The key to success of this operation is regular infusions of focused logistic support delivered quickly and precisely by ground and aerial means.⁹⁶

Throughout this operational phase the combat groups maneuver, spaced in breadth and echeloned in depth, moving to gaps and weaknesses revealed or created by organic armed air-ground reconnaissance and indirect fires. When possible, enemy points of resistance would be bypassed, particularly those in difficult areas such as close terrain, forests and cities. Close combat of this sort will be decisive. Friendly combat units maintain just enough contact to surround, contain and feel out the shape and size of each enemy formation. As precision strikes begin to wear away the will of the enemy, close combat forces converge deliberately. By this stage of the fight time becomes the friendly force's ally. The initiative belongs entirely to the friendly force. Eventually surrounded, unable to mass, out of touch with adjacent units and higher authority, each discrete enemy force slowly collapses.

These attacks are rapidly followed up by the introduction of heavier combat forces that can rapidly translate tactical success into operational exploitation and pursuit operations. In this exploitation phase of the attack, the operational theater-wide offensive is transformed from a series of breakthroughs in the air and on the ground where the enemy defense has lost its coherency into large-scale exploitation attacks along multiple air-ground axes to seize operational

⁹⁵ US Department of the Army, *FM 3-0: Operations (DRAG)*, (Washington, DC: HQ, Department of the Army, June 2000): p. 4-19.

⁹⁶ Douglas A. Macgregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century*, (Westport, CT: Praeger Publishers, 1997): p. 146.

objectives in the enemy's rear areas. As the exploitation attacks succeed, the conflict termination phase begins with the occupation and administration of key areas.

The operational maneuver concept detailed in this section is unencumbered by historical bias, considerate of the practical realities of limited war, and driven by purpose instead of method. The conduct of an operational offensive-tactical defensive campaign is best suited for limited wars, which clearly occupy a narrow segment of our potential future conflict spectrum. However, recent history suggests that limited wars are what the United States faces most often with the least success. These kinds of wars need the most attention to insure that the US Army will be able to win them at the least possible cost in the future. The US Army must begin now to alter the way it fights to stay ahead of potential enemies who, as seen in Vietnam and Kosovo, already have begun to exploit its tendency to rely heavily on firepower to win on the battlefield.

VI. CONCLUSIONS

The chances of the United States becoming involved in a limited war are greater now than in any other time in our history. When the United States decides to intervene against a nominally weaker enemy, firepower will not be constrained so much by its availability as by its political control. The excessive, inappropriate use of firepower by the US military has often been more politically damaging for the United States than the military effect of that firepower has been to the enemy. The United States truly has the best military forces in the world today, but the continuing challenge is to achieve a balance of capabilities that are relevant to the nation's security needs. The end of the Cold War turned fifty years of relatively stable military planning upside down overnight. Without a clearly defined threat, the military is faced with change: and it must change to meet the nation's needs in an uncertain future.⁹⁷

The leadership of the US military must understand that attempts to optimize firepower on the battlefield are not new. As a new generation of US military leaders strives to choose which concepts for future warfare to develop into operational doctrine, these decision makers cannot afford to ignore the lessons from recent history. Overwhelming firepower has not been decisive in America's limited wars of the last half-century. The US military should certainly continue to leverage all the joint firepower capabilities available. However, decisive victory on land still requires a balanced application of maneuver and firepower.

Fortunately, recent history offers more than a warning. It offers a historical trail of practical evidence that provides a path to guide the US Army into an uncertain era. In sum, the recent past suggest the following trends:

- A battlefield dominated by precision firepower favors the defensive. Therefore the surest way to win at acceptable cost is to employ an operational offensive-tactical defensive strategy.

⁹⁷ Joel G. Himsl, "Dominant Maneuver vs. Precision Engagement: Finding the Appropriate Balance Between Soldiers and Technology," (Carlisle Barracks, PA: US Army War College Monograph, 1998): p. 33.

- Firepower intensive wars must be won quickly.
- The enemy must be located precisely and fixed with the smallest possible exposure of the maneuver force.
- An adaptive enemy will most likely counter superior precision firepower capability by dispersing, hiding, and going to ground in built-up areas.
- Maneuver forces must be provided the tools to adequately support an operational offensive-tactical defensive campaign.

Modern weapon systems have changed the dynamics of battle but not the fundamental need for balance between maneuver and firepower. The US Army must begin now to alter the way it fights in order to stay ahead of potential enemies who, as seen in Vietnam and in Kosovo, already understand and exploit the American way of war. The lesson learned from the limited wars of the last 50 years is that regardless of how intense the combat, cheap victories will come only if the US Army changes its warfighting doctrine to accommodate the realities of limited war in the precision engagement era.⁹⁸ Fortunately, FM 3-0, Operations (DRAG), provides the necessary operational doctrine for the development of tactics, techniques and procedures to ensure success in future conflicts.

Battlefield dominance requires balanced forces that possess maneuver, protection, firepower, leadership and information. In the year 2010, small, self-contained, mobile combined arms forces, maneuvering simultaneously with the support of land, sea and air precision strikes to rapidly defeat the enemy, will generate battlefield dominance. The combination of mobile strike forces and precision strikes will place the enemy on the “horns of a dilemma.” Killing him with precision strike forces if he ventures out of his defenses, and smashing him with quick moving, lethal maneuver forces that inexorably conduct a continuous battle, dislocating, disrupting and preempting the enemy’s ability to resist.⁹⁹

⁹⁸ Robert H. Scales Jr., “America’s Army in Transition: Preparing for War in the Precision Age,” *Army Issue Paper No. 3*, (Carlisle Barracks, PA: US Army War College, Strategic Studies Institute, 1999): p. 27.

⁹⁹ John A. Antal, “End of Maneuver,” *Digital War: A View From the Front Lines*, ed. Robert L. Bateman, (Novato, CA: Presidio Press, 1999): p. 165.

This monograph concludes that precision engagement has not advanced to the point where it will be the dominant concept at the operational level in America's limited wars of the precision engagement era. Dominant maneuver and precision engagement are complementary concepts at the operational level (just as maneuver and firepower are at the tactical level). It is the author's opinion that dominant maneuver is the overarching operational concept and that precision engagement is an enabler. The challenge is to produce the correct balance of maneuver, firepower and protection to create a force that can apply decisive action to achieve the desired military end-state of a campaign. Decisive action in the 21st Century will require precision engagement and dominant maneuver on the battlefield. The US military's doctrine, training, and procurement must reflect a balance. Contrary to the wishes of many, close combat may never disappear from the future battlefield.

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